



MISSOURI BOTANICAL GARDEN
PETER H. RAVEN LIBRARY



GEORGE ENGELMANN
BOTANICAL NOTEBOOKS

Pagination Note:

Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

Hot Cels, Paris March 18
1869

Hort. Belg., Selva ?

Agave attenuata glauca

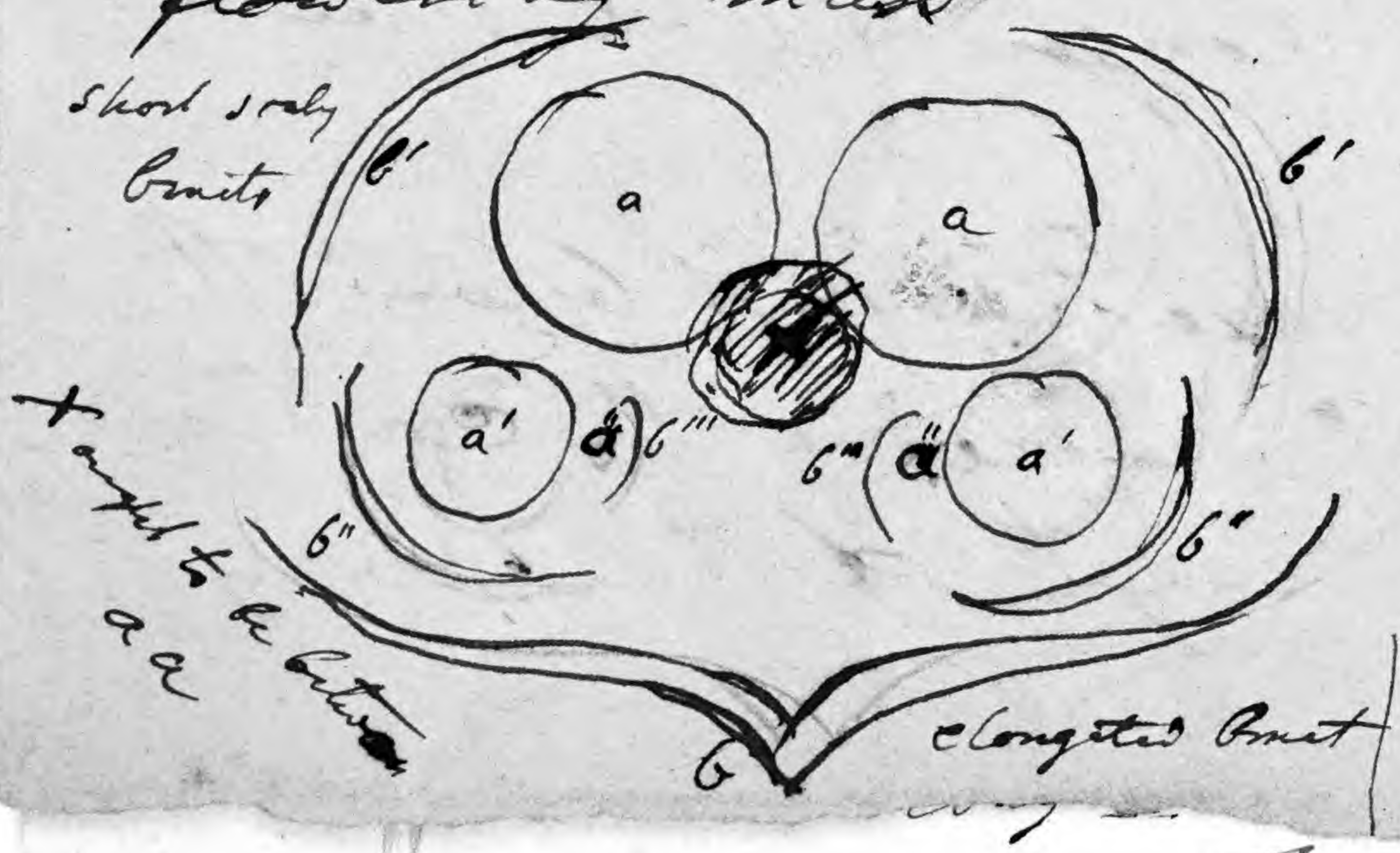
Perhaps specifically different from the true attenuata (Cels) ^{file}

Plant in full bloom

Old leaves were 6 feet long and ten ^{inches} wide, smooth on margin, with elongated slender herbaceous tips; about the time of the exhibition 18 months ago the plant showed signs of preparation for flowering, by sending smaller leaves in the centre, though it was very healthy and vigorous; but only 5 or 5 1/2 months ago (Octob 8th) the scape began to form, and the first flowers opened a month ago - they continue to open, and about one half, the upper of course, are in bud yet.

Trunk 15 or 18 inches high, below the leafy part a little longer; scape 9' high its lower part imbricately covered with numerous lance-linear bracts, drawn into a long point, herbaceous, not at all scarious, and somewhat pubescent or flexuous upward.

The flower-bearing part of scape about 7' long and (with the dense flowers) 10 inches ^{long} ^{has} the linear ^{subulate} bracts protruding beyond the cylindrical ^{flowering} ^{mass}



b. principal bract, on the main axis, bearing short axis x
 b' b' 2 lateral secondary bracts on short axis x bearing in their axils the ^{axillary} flowers or young fruit a a
 These peduncle of these bears b'' b'' bracts, and in their axils the flowers ^{and} a' a'; the peduncle of these bears small bracts b''' b''' and

This is the plant described by Jacquin p. 176

small clove flowers a" a"

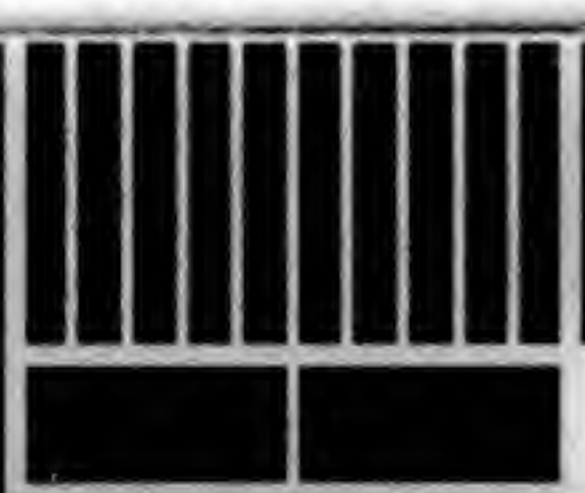
flowers
just open



lacinia

stamen
in bud

tube only 3 lines or $3\frac{1}{4}$ lines ($6\frac{1}{2}$ mm)
 long, infundibuliform,
 corolla 1 inch (25 mm)
 long, oblong-linear, involving
 the stamen, which is fixed
 (with bud) below the apex of the
 phyllon, and bears an anther not quite
 1 inch length — filament and
 style afterwards more elongated —
 ovary a little over 1 inch long, linear
 say: laciniae equal in length
 to ovary, much longer (6-8 times as
 long) as tube
 filaments inserted just below the
 base of the tube, exceeding the corolla
 about one half the length of the lobes
 or $\frac{2}{3}$



0 1 2 3 4 5 6 7 8 9 10
cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

anthers	22	mm		
stamens exsert	15			
lobes	25		} perisperm 31	} flowers
tube free	12	6		
adnate to stan. 5)				
ovary	25			stamens
pedicel	10	12		56 mm
	10	20	mm	

(Pedicel much shorter)



two flowered, off
 4 flowered, and
 sometimes with rudiments
 of a third pair of flowers



MISSOURI
 BOTANICAL
 GARDEN

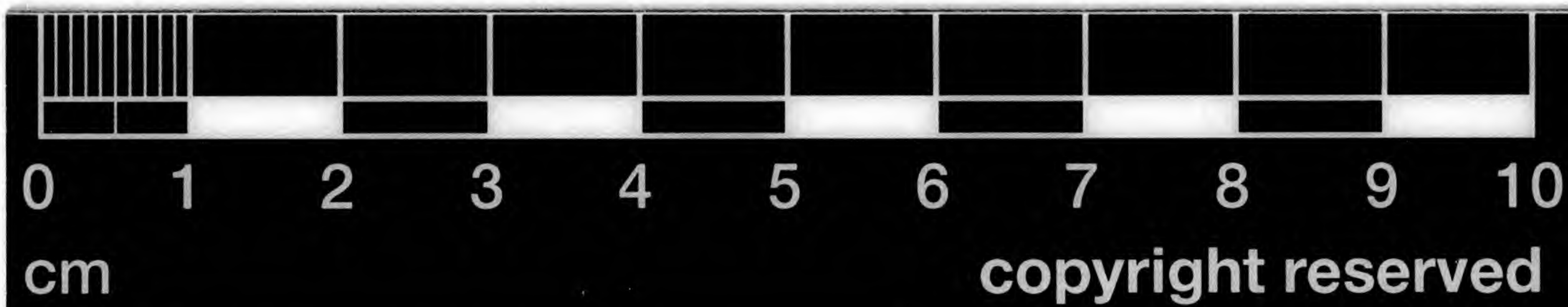


0 1 2 3 4 5 6 7 8 9 10

cm
 copyright reserved

7981

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



copyright reserved



MISSOURI
BOTANICAL
GARDEN

Berlin, et Hensloff, June 5th 1869

Agave attenuata Hort Berlin - Jacobi p. 177

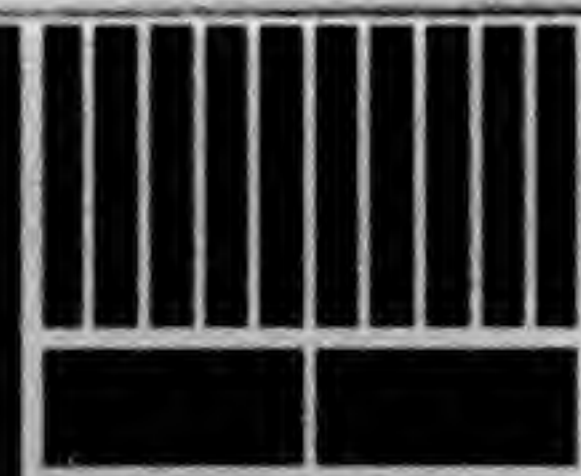
a beautiful specimen, trunk 3' high, 2 1/2 inches
diameter - leaves pale glaucous, with long
herbaceous point, and smooth edges
proliferous from the base



Same in Hort Bot. Jun 19 1869.

trunk 4-5 feet high 3" diameter. but
flexuous, not well grown - leaves only 2 feet
long -

This is the plant described by Jacobi
p. 176



0 1 2 3 4 5 6 7 8 9 10

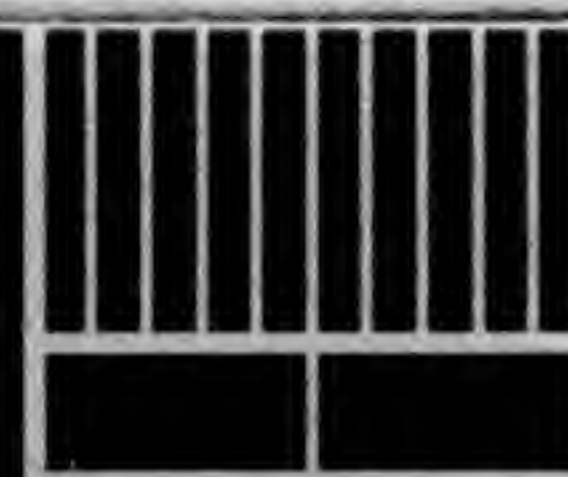
cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

7982



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

Agave micrantha Salis - Doupland. VII. 93. London Refug V. 1872

tab 327 -

belongs to gemmiflora very dense spike.

Mex. 10



0

1

2

3

4

5

6

7

8

9

10

cm

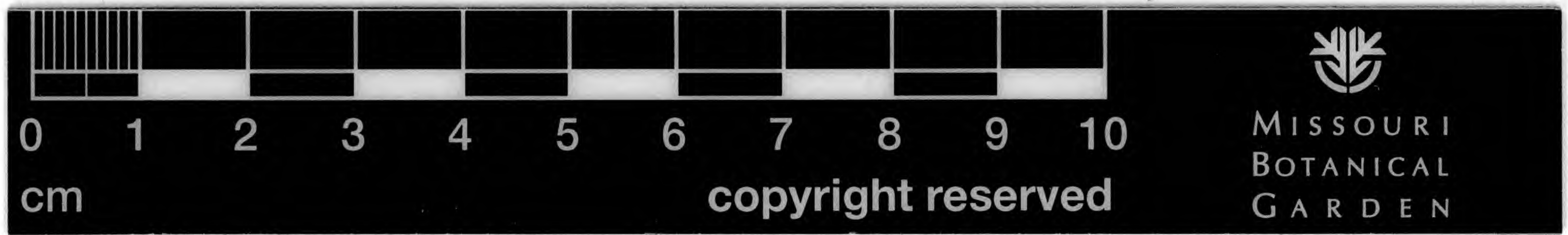
copyright reserved



MISSOURI
BOTANICAL
GARDEN

7983

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



1872

Agave heterantha Jacq.
according to Jacobi's description (H. - Brunsels)
Nachträge p. 14



perigon divided to base
lobes oblong spreading 1"
base of filaments inserted
to base of lobes,
connate above the ^{base} of style
flowered in Brunsels



0 1 2 3 4 5 6 7 8 9 10


cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

7984


J. C. KIRCKBRIDE
 DRUGGIST
 No 2600 OLIVE STREET,
 S.W. CORNER OF PRATTE AV.
ST. LOUIS, MO.

MISSOURI BOTANICAL GARDEN
 GEORGE ENGELMANN PAPERS

Dr. George Engelmann, Office 3003 Locus



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved

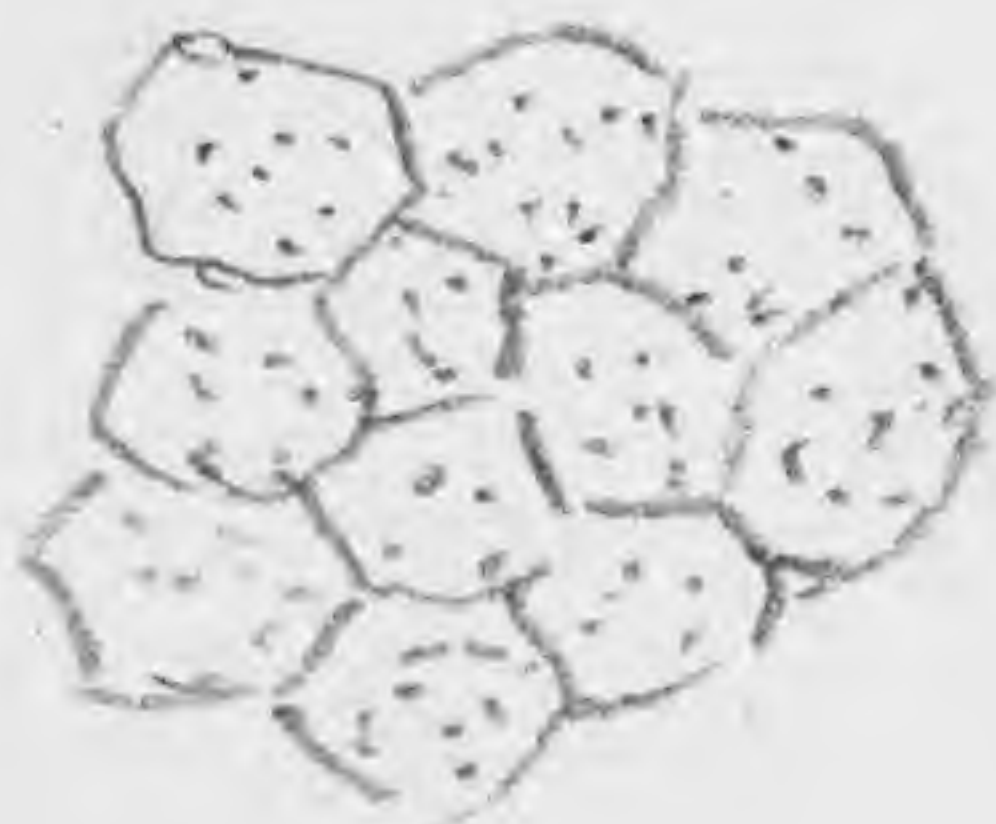


MISSOURI
 BOTANICAL
 GARDEN

A. Sartorii
var. *latifolia*

May 16 1872

coll. Vesinets 1869 by Mr. G. J. G. G. G.



cells flat or slightly convex
dotted

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS
MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS
MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

7985

Leitch & Corlies

DRUGGISTS

South-west
Corner Fifth
and Market
Streets

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

A. heterantha.

Nov 24 1875

"Leuchowilla"

Saltville 23 May 1847
Dr A. Vestigenny

with
15-16 mm



18

16

19

3

16-18



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

7986

HOELKE BROS.,

APOTHECARIES AND CHEMISTS,

S. W. Cor. Sixth & Market Sts.,

ST LOUIS, MO.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

"Agave univittata"

Oct 30 1883

all the flowers 2-bracted

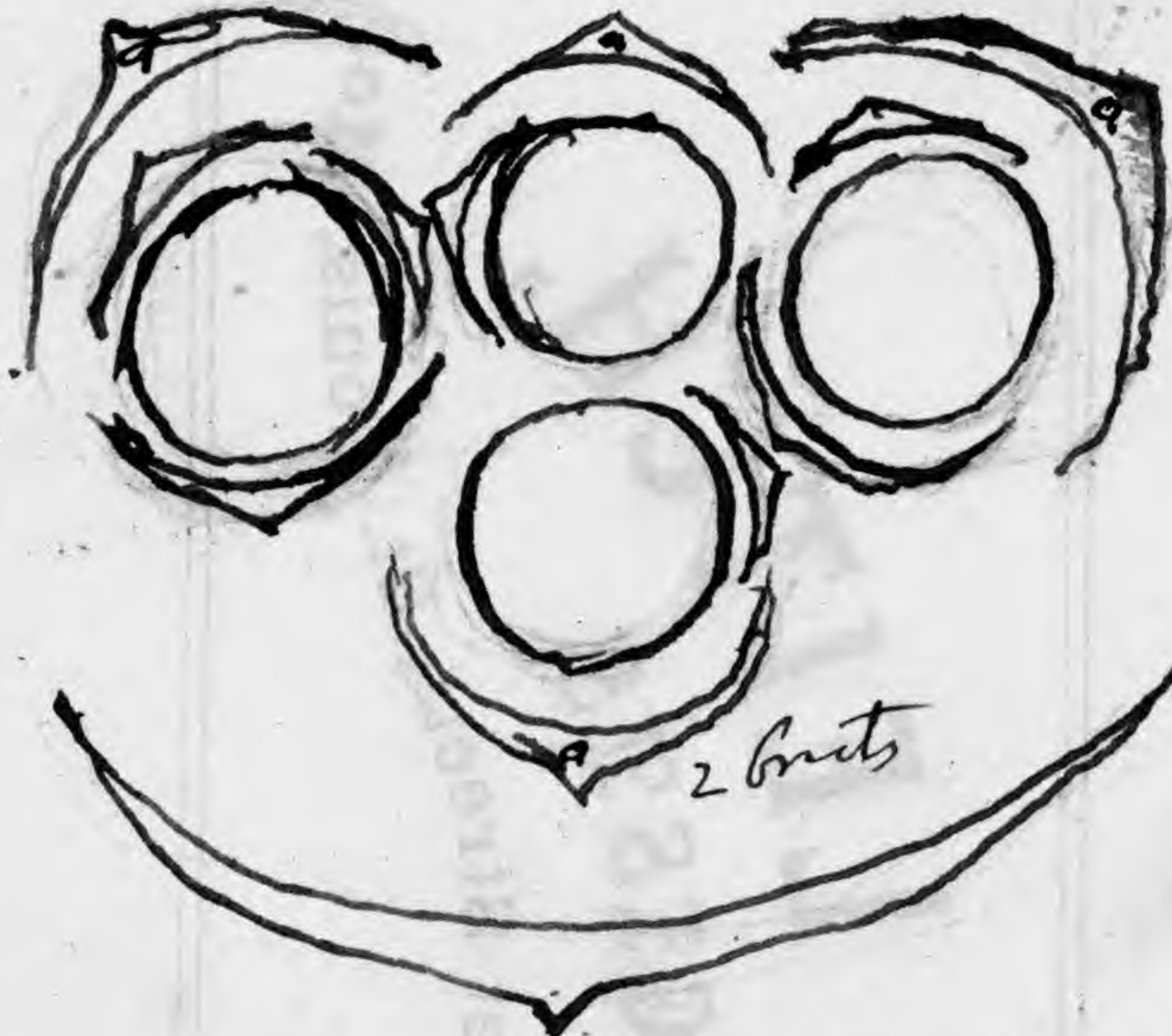
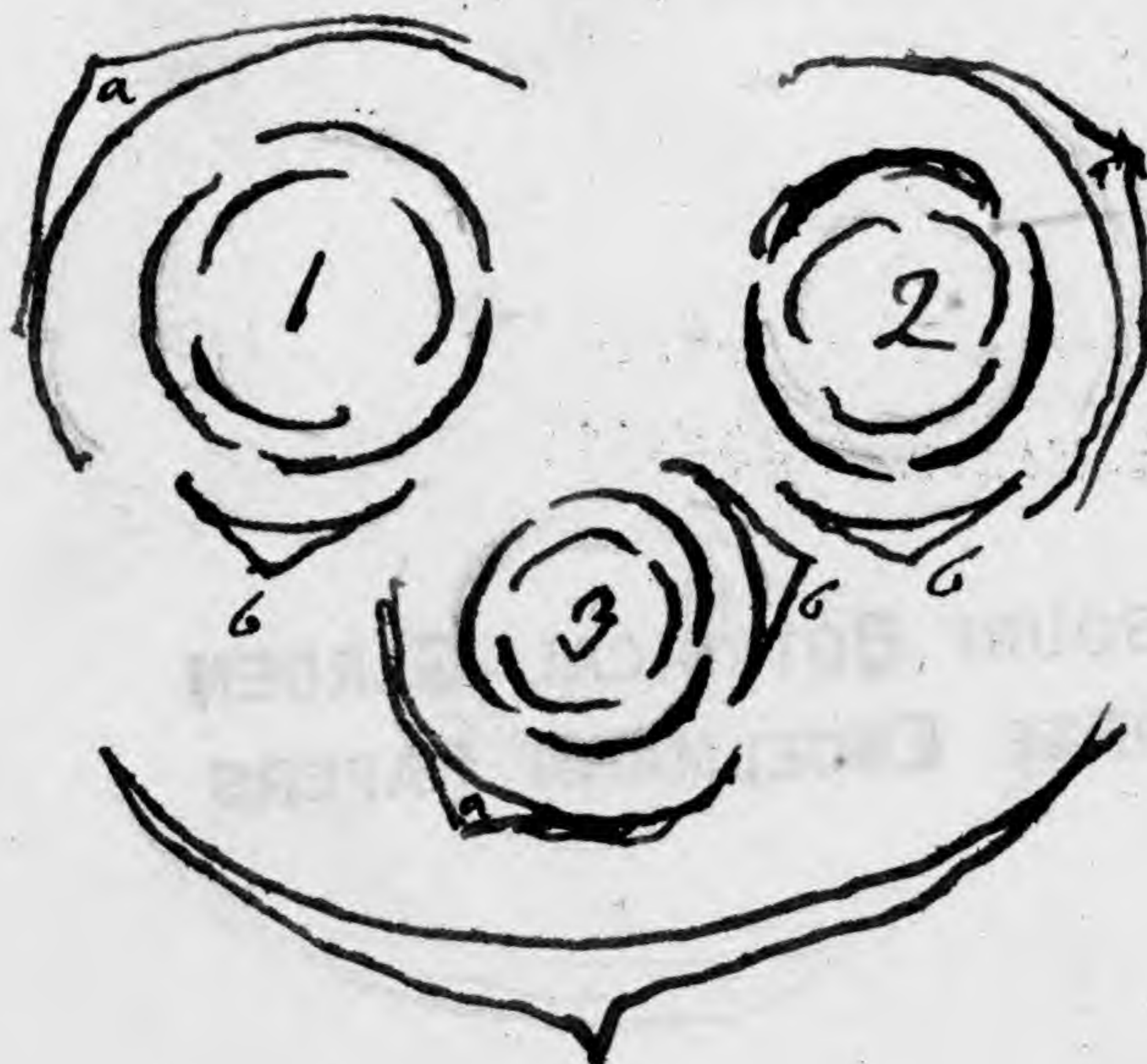
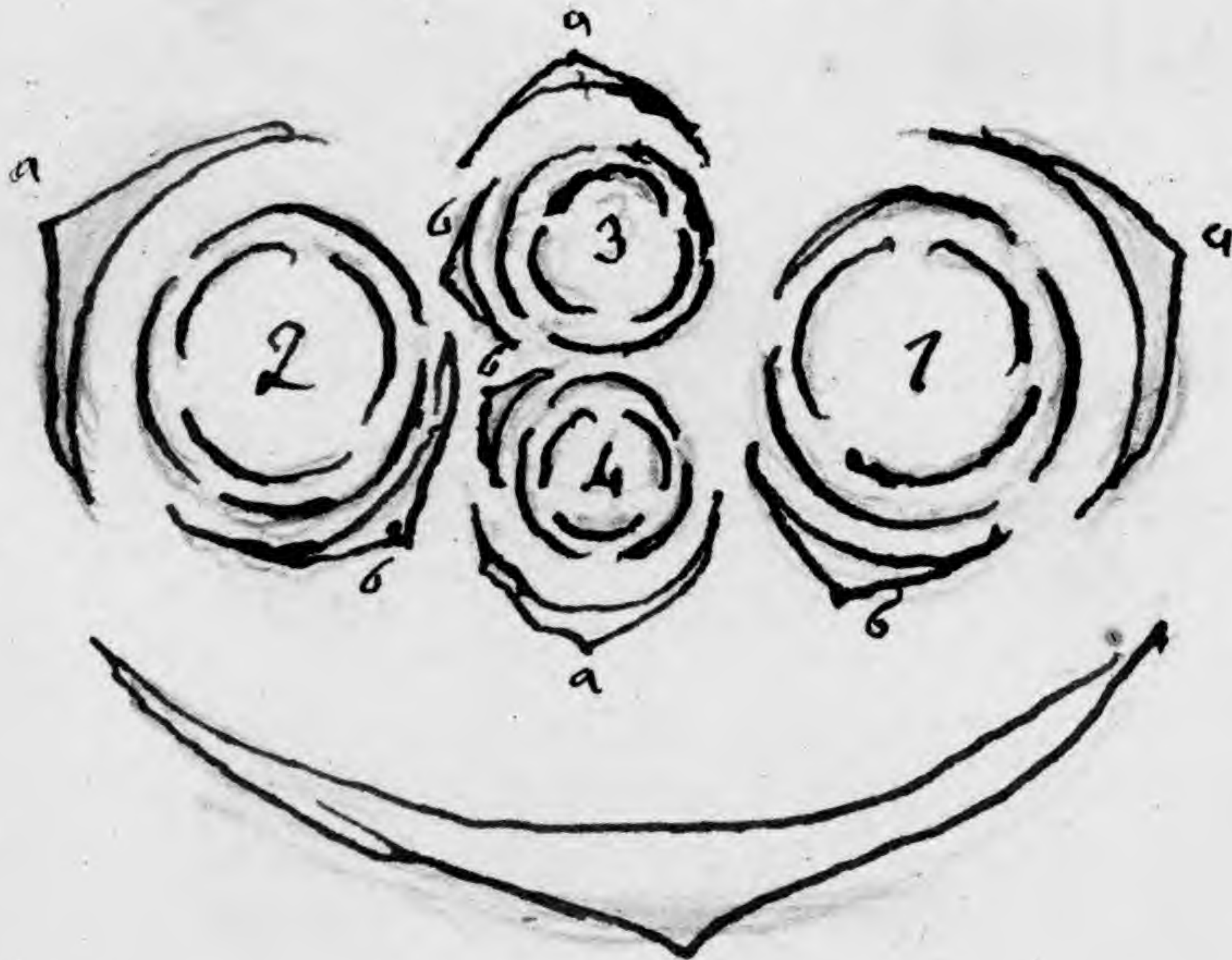
H.B. Missouri Oct 30

flowers 2-bracted

4 bracts

2 bracts

3 bracts

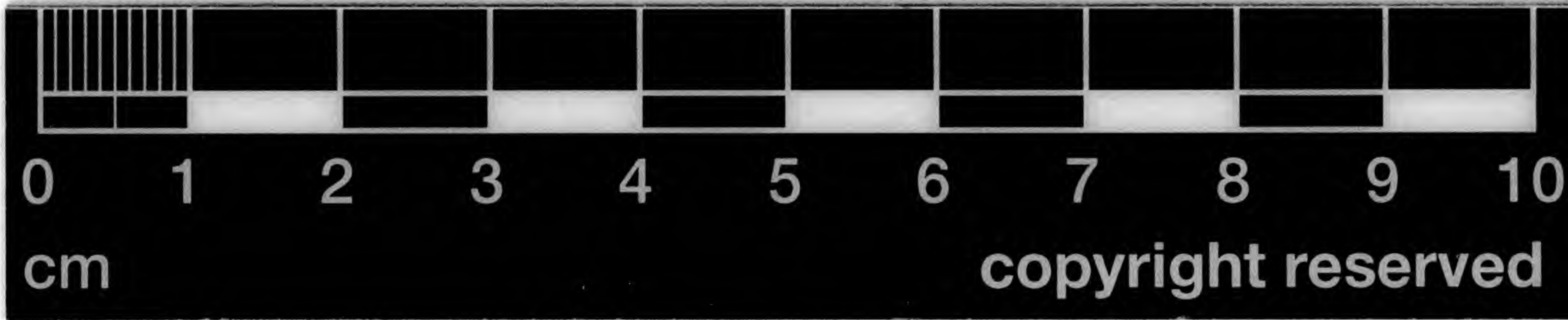


middle flowers 2-bracted, lateral (outer) ones 3 & 4 bracted

Racemose spike

a a a bracts at base of pedicel
b b b " higher up on pedicel

1, 2 lateral flowers in the typical pair, opening first.
3 & 4 apparently central flowers, but opening later; we may consider them secondary on a primary central peduncle anterior and posterior thus alternating with the lateral ones and later than they. They are not always present, only a knob indicating the primary axis.



MISSOURI
BOTANICAL
GARDEN

7987

**JONES & LEITCH,
BOOKBINDERS,**

Corner Fifth and Market Streets, St. Louis, Mo.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved

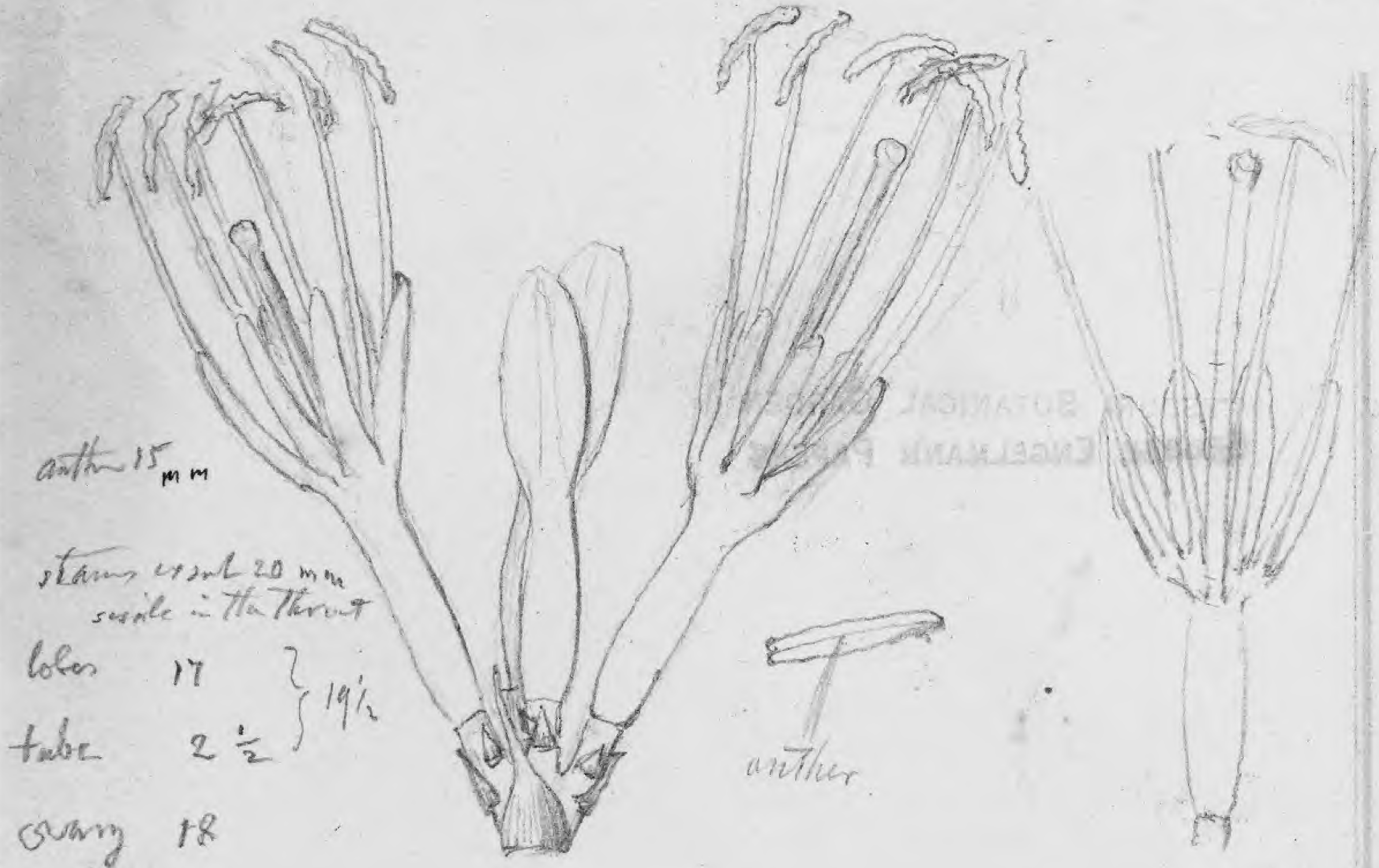


MISSOURI
BOTANICAL
GARDEN

"Agave univittata"

Nov. 1st 1823

H. Bot. Missouri Oct 30 1823



flowers in a loose raceme
(on a side shoot from below the leaves!)



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

7988

D'ONCH & CO.,
APOTHECARY,

S. W. Corner of Second & Mulberry Streets,
ST. LOUIS, MO.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



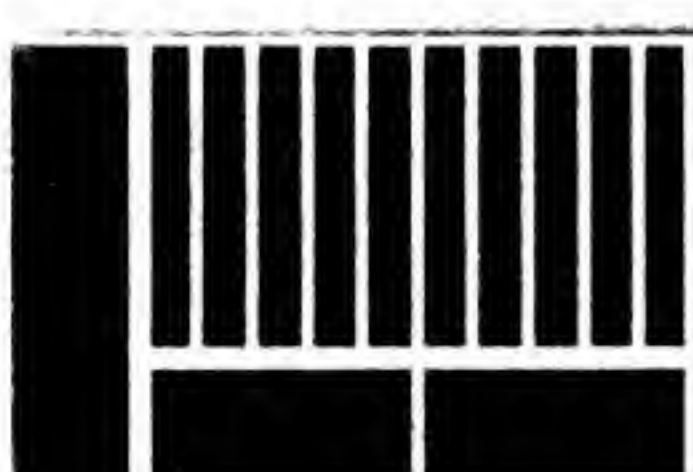
0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN



0 1 2 3 4 5 6 7 8 9 10
cm

copyright reserved

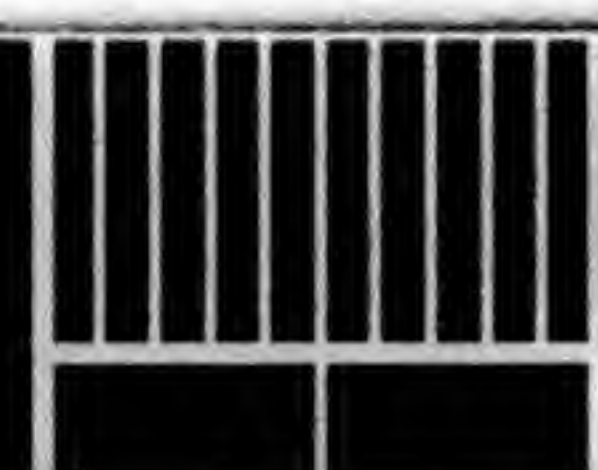


MISSOURI
BOTANICAL
GARDEN

7989

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Agave Schottigera
Cambridge August 1874



0
cm

1

2

3

4

5

6

7

8

9

10

copyright reserved



MISSOURI
BOTANICAL
GARDEN

Agave horrida Lem. Bot Mag t. 6511

1880
one of the smaller *Agaves*, tall cylindrical
fl. spike, densely crowded



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

7990

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Dear Sir
Policy No
7893 covering ten thousand
dollars insurance on your
house 924 Corner of
Garrison Av. and Locust



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



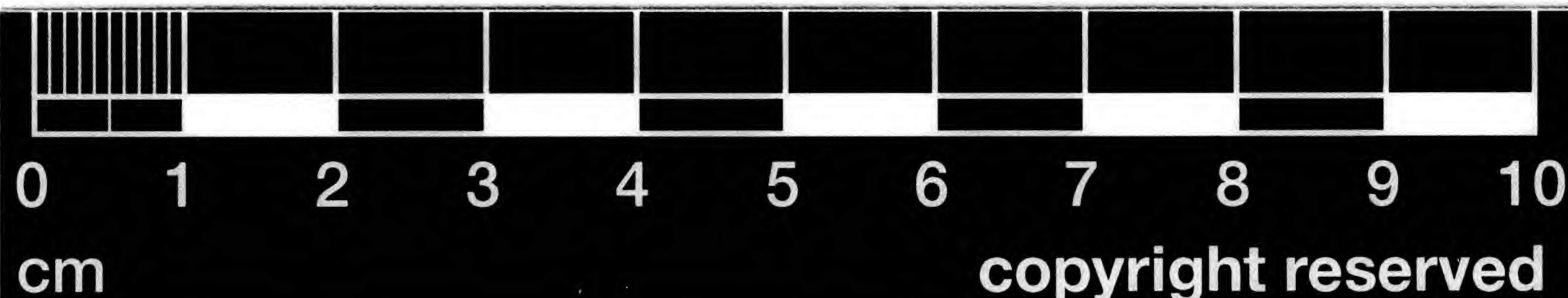
MISSOURI
BOTANICAL
GARDEN

be considered how rarely anybody may have taken the trouble to search out the exact post-mortem appearances of animals that died several weeks after the experiment for which they served. This much is indeed well known to physiologists, that rabbits in whom the sympathetic nerve in the neck was cut, usually perish five, six, or eight weeks later; henceforth it will be of interest to investigate the cause of death in these animals, and it will be, so to speak, a test of our deduction, whether or not pulmonary tuberculosis will be found in a large number of the animals that have thus died.

"We justly hesitate, however, to draw still farther conclusions from our experiments Firmly as we dare to maintain our conception of the history of tuberculosis by inoculation, or, as we may well say, '*traumatic*' tuberculosis, we desire to be as cautious for the present in our conclusions as to the '*idiopathic*' tuberculosis, so to speak, of man.

"Just as little do we venture an opinion as to what is the active element in the inspissated, necrosed pus,—whether it is the free, highly refractive granules, or the shriveled pus cells, or perhaps a chemical substance held in solution; only, in view of the well-known, very different effects of the injection of fresh pus into the veins of dogs, we think we must lay particular stress upon the fact that it is *necrosed* [*'abgestorbener'*—dead, decayed] pus. Moreover, we have in nowise got nearer to a solution of the question, so much discussed in these latter years, of the relation of tuberculosis proper to the so-called caseous pneumonia. It is true, we have repeatedly found in the lungs of our Guinea-pigs, along with the tubercles, the presence of more or less extensive, dry and tough, yellowish-white hepatisations which presented not a little similarity to what in man is designated as cheesy pneumonia. We regard this question, however, as much too intricate to be settled thus casually by a few isolated experiments, as it is still in doubt, besides, if the lungs of rodents are the proper objects for this purpose. Finally, we do not venture the slightest attempt to explain, by means of the material thus far actually brought before us, the mechanism of the occurrence of tuberculosis and its extension over the organism."

gemmae
Ohio Garden
[Sheet 44-53]



the removal of foreign bodies from the ear. From the context of his remarks it seems not likely that he was aware of the existence of Dr. BILLROTH'S instrument, or any similar invention based on the same idea.

THE ORIGIN OF TUBERCULOSIS.

Referring to our previous article in the January number, in which we communicated Dr. WASHINGTON'S letter on the experiments of COHNHEIM (and FRÄNKEL, the associate in his labors), we deem it a matter of some importance to lay before our readers the actual conclusions these two experimenters deemed themselves warranted in expressing. They are embodied in an extended article in *Virchow's Archiv*, Bd. XLV., p. 216; and we take pains to transcribe their own words (pp. 227-229) as literally as possible:

"No one, indeed, can be less inclined than we, to draw too far going conclusions from our experiments, but we do believe that the whole series of them and especially the three performed on dogs, in which we are unable to discover any essential sources of error, justify and compel this conclusion: that it is really *the necrosed and inspissated pus, to the reception of which into the circulation tuberculosis owes its origin*. This assumption fully explains all facts which have come under observation in our entire series of experiments; and the results of all other experimenters may also, we think, be interpreted in this way without constraint. Every inoculation, in the rabbit or Guinea-pig, at whatever place performed, or with whatever material, must have produced conditions under which an accumulation and subsequent inspissation of pus could take place, and therewith, as we assume, the possibility of tuberculosis being developed; in the dog, on the other hand, where, as is well known, such inspissation of pus very rarely occurs, the production of tuberculosis has for that reason been effected in so few cases only, and one seems to be certain of success only when the necrosed thickened pus is introduced directly into the circulation of the animal. At first sight, it might appear paradoxical, that so striking a fact as the development of general tuberculosis in consequence of the inspissation of pus should not long be known, when every physiological laboratory offer daily opportunity to verify it; at the same time, it should

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

1662



0 1 2 3 4 5 6 7 8 9 10
cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

Guatemala Aug 1879

Agave (Zeromiflora)

Palmers "a small Agave" from Alvarez

tube 3" lobes 6"

stamens inserted in throat filaments 15 lines long

another specimen with that name has tube 3" lobes 6-7"

Agave (Zeromiflora) 15 feet high

flowers very dense
cavity of tube scarcely 1 line

tube 2 lines lobes 7/2"

filaments inserted in throat

15 lines long

style 18 lines long

compact imbrications
base of the tube coming off the capsule and carrying the

style



0
cm

1

2

3

4

5

6

7

8

9

10

copyright reserved



MISSOURI
BOTANICAL
GARDEN

7992

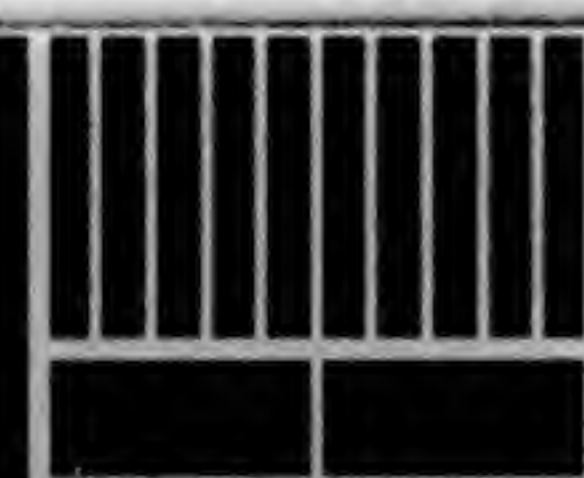
MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Davenport, Iowa, 1877

W. H. TAY,
Manufacturer of Paper Boxes,

215 1-2 WEST THIRD STREET.

Subject to Sight Draft without Further Notice.



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

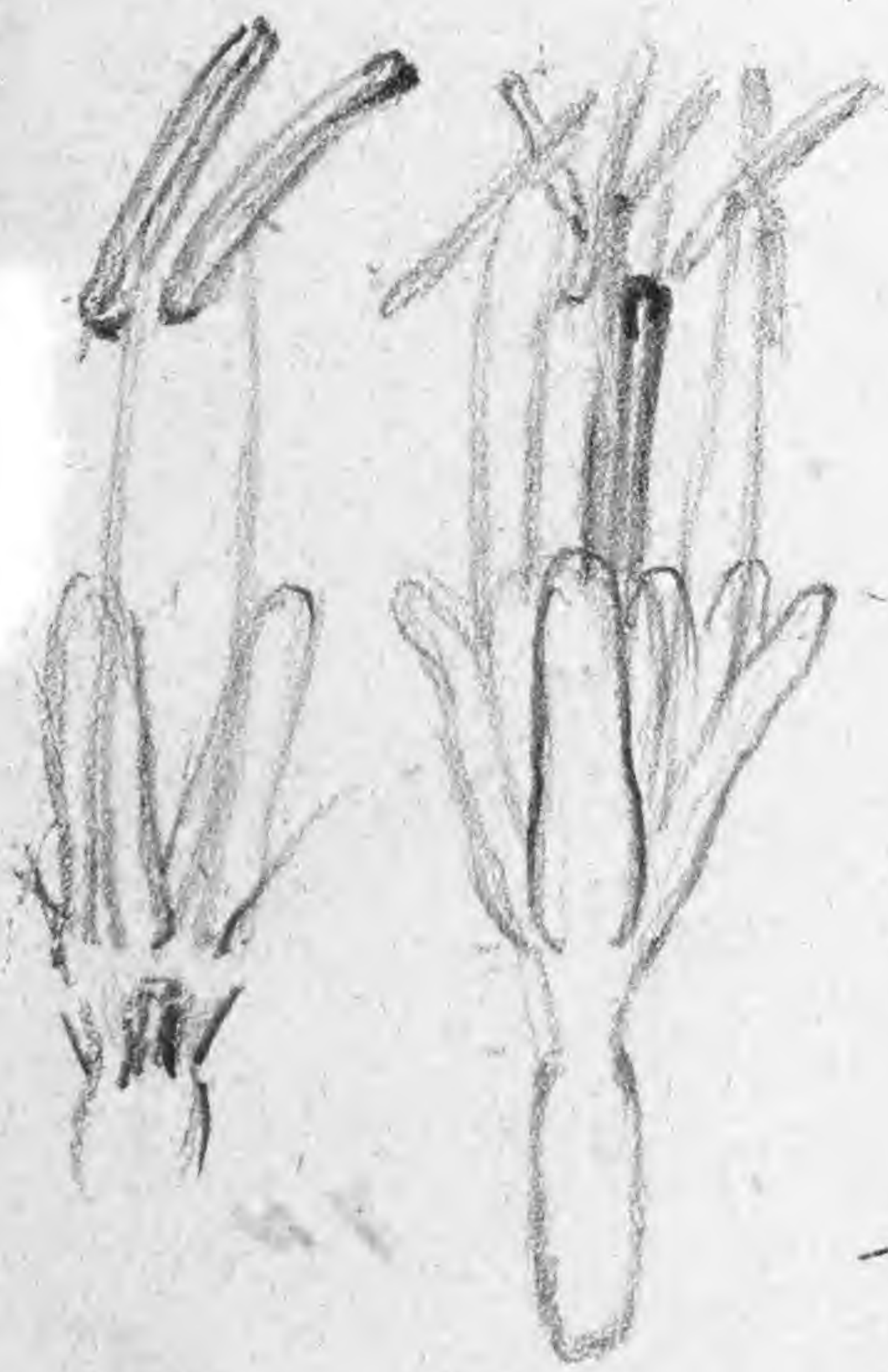
C. Koch 'Wochenstr. f. Gartenst. 1860 p. 37; Hort Bot Berlin Jun 14 1869

Agave Sartorii (a. n. Roachii garrigues)

Trunk 2 feet; leaves 2-2 1/2 feet long, fleshy
thick, narrow 2-3 inches wide, with soft and
delicate herbaceous teeth and a brownish
spinous point, plant sprouting from axils of leaves
Scape 4-5 feet long, flexoid, curved over,
almost pendulous; flowering part only
1 foot long; bracts subulate; in the flowering
part 1 inch long;

(Agave dasyliroides has also a pendulous
scape, and the same specimen has flowered
3 times in this garden, and sprouts freely.)

Agave Sartorii C Koch Hort Bot Berlin
Jun 14 1869



Past flowering, flowers withered,
yet adhering - in pairs

Ovary apparently about 12 mm long,
tube 4 mm long, lacinae about
14 mm long, 4 mm side (soaked 5-5 1/2 wide)

stamens inserted in filaments, twice as
long as flower (about 30 mm from
insertion to anthers) Anthers 12 mm
style as long as filament (soaked 13 mm)

tube dry	4	soaked 5 mm long	} 19 mm
lacinae	14	4	
	4	5-5 1/2 wide	
filament	30	35	over
anthers	12-12	13	



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

C Koch thinks this is identical with
Apendula Schmittsp., which Jacobi
pag 249 (and L. Noackii) contoversy
and thinks Jacobi's = Noackii have
erect scapes & spikes -

The Berlin specimen is pubes!

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10
cm copyright reserved



MISSOURI
BOTANICAL
GARDEN

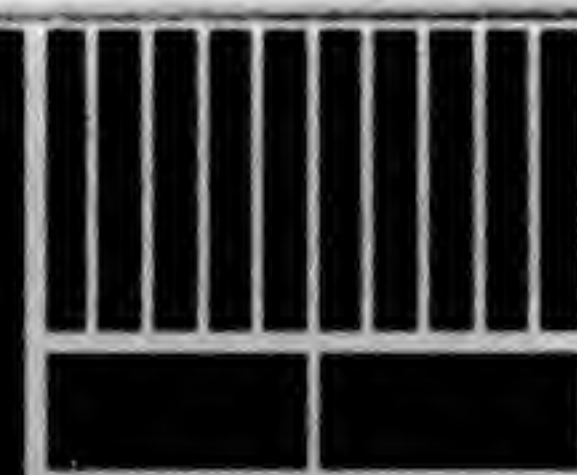
Agave dasylyrioides Jacobi & Bouche
in Jacobi *Agav.* p. 150

Hort Berlin June 19 1868

No trunk - scape simple, spiked, below
covered with linear scarious bracts

Stamens inserted at different elevations

(no drawing made)



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

~~A Doukhan in fey d wite~~

~~small very in p mites~~

~~May 21st~~

~~Marion in ob~~

~~Bract in leafy 2" - 2"~~

~~in leaf 1 full cell~~

~~Sept 21st, after 2 1/2~~

Chloromastix bruchii

~~leafy leaf - mite~~

~~in p mites~~

~~Mar 11. in p mites~~

2 ⁱⁿ leafy - both sides of leaf - side

4 "dick" - young mites, 2 in - 2 in - 2 in

6 in

Sept 4-5 - mites - full leaf - all

3-5" - leafy 2' 1/2 - 2' 1/2 - 2' 1/2

leaves -



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

Agave Dasy lirioides Bouche & Trebbi
Trebbi Agv. p. 150

Hort bot Berlin Jun 19 1868.

Guatemala
waxey

Acaulescent, scap simple, curved, upper part
pendulous, lower part covered with
linear scales scarious bracts
stamens apparently inserted at different
elevations (notes in garden.)

^{original}
Trebbi's plant flowered 1862 and the same specimen
again in Hort Berlin 1868 and between
those periods — 3 times in all (Bouche)
It sprouts freely (see 1869)



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN

7995

Leitch & Corlies

DRUGGISTS

**South West
Corner Fifth
and Market
Streets.**

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



0 1 2 3 4 5 6 7 8 9 10

cm

copyright reserved



MISSOURI
BOTANICAL
GARDEN